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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/442,906	11/18/1999	SCOTT THOMAS MARCOTTE	EN999+121	6545

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EXAMINER

WILLETT, STEPHAN F

ART UNIT	PAPER NUMBER
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2141

DATE MAILED: 01/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/442,906

Applicant(s)
Marcotte

Examiner
Stephan Willett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Nov 20, 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2, 9-11, 16, 17, 24-26, 31-33, and 39-41 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 9-11, 16, 17, 24-26, 31-33, and 39-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

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DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 16, 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims state “bypassing copying the data between one or more buffers of the at least one server buffer and the one or more buffers of the at least one or more buffers at least one file system buffer” is unclear since said data is swapped earlier. Also, the claims state “one server buffer residing outside the file system of the server”, “receiving said data by said system from a sender”, and “swapping” of buffers, but it is unclear in which direction the data is moving as for example in a read or write request since the sender can be the server. Also, the claims state sending data “from one or more buffers of the at least one file system buffer”, but it is unclear in which direction the data is moving as for example in a read or write request and if the data is located in the server buffer since the receiver can be the server. Also, the claims state sending and receiving data as “transmitting at least one of” or both, thus it is unclear how both sending and receiving can be transmitted.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

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obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2, 9-11, 16-17, 24-26, 31-32 and 39-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burnett et al. with Patent Number 6,006,018 in view of Hamilton et al. with Patent Number 5,799,150.

5. Regarding claim(s) 1, 16, 31, Burnett teaches transmitting data between a file system, col. 5, lines 4-7 and 26-27 via client or server, col. 4, lines 44-45. Burnett teaches a file system buffer as “local cache 12A, 12B and 12C”, col. 4, lines 49-60 and server buffers as the numerous other buffered data, such as ids, paths, etc., for effective communication, col. 5-6, lines 61-27 and specifically elements 2A, 2B, 2C of Figure 1 which are clearly external to the file system disk 2A, col. 4, lines 59-50. Burnett teaches swapping, moving or changing data between a file system buffer and a server buffer, col. 4, lines 62-64 as “server cache [buffer] 12A” is swapped to “client cache 12A”. Similarly, file disk 2A has a file system buffer that swaps or “stores them [data] in server cache 12A”, col. 4, lines 59-60. Burnett teaches transmitting data directly from a file system buffer by using a call back type function, col. 4, lines 64-66 of which the server does not have notice of a pattern of access, col. 5, lines 61-64 since this can “vary” and be variable dependent to bypass copying of data, col. 4-5, lines 66-2. Burnett teaches the invention in the above claim(s) except for explicitly teaching bypassing buffers on the client or server side. In that Burnett operates to transfer data quickly, the artisan would have looked to the transmission buffering arts for details of implementing buffer bypasses to transmit data. In that art, Hamilton,

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a related network data transmission device, teaches media files with pointers to a file list, col. 6, lines 34-36, 39-42, 51-59 and col. 7, lines 6-13 and their associated file system buffers. Hamilton specifically teaches file system buffers as connection parameter related buffers, col. 4, lines 56-57 and said bypassing, col. 9-10, lines 63-6. Further, Hamilton suggests "no system memory buffer copy ... this traditional method is bypassed ... by minimizing data copying", col. 9, lines 59-67, and col. 10, lines 34-39, "to transfer the media data portion of the packet directly from the memory network interface into the main memory or other I/O device memory", col. 10, lines 2-6 will result from bypassing buffers. The motivation to incorporate client or server system buffer bypassing insures that data throughput speed can be increased. Thus, it would have been obvious to one of ordinary skill in the art to incorporate the client or server buffer bypassing as taught in Hamilton into the transmission system described in the Burnett patent because Burnett operates with real time data transfers and Hamilton suggests that optimization can be obtained with client or server buffer bypassing system data transfers. Therefore, by the above rational, the above claim(s) are rejected.

6. Regarding claim(s) 2, 17, 32, Hamilton teaches passing said data to a storage medium, col. 5, lines 36-42 .

7. Regarding claim(s) 9, 24, 39, Hamilton teaches sending data to a receiver, col. 8, lines 1-3.

8. Regarding claim(s) 10-11, 25-26, 40-41, Hamilton teaches a routine to provide pointers to said sent data, col. 8, lines 39-43 and col. 7, lines 51-52 and Burnett teaches media files with pointers to a file list, col. 5, lines 61-64..

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9. Claims 1-2, 9-11, 16-17, 24-26, 31-32 and 39-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art in the background in view of Ledain et al. with Patent Number 6,021,408 and Hamilton et al. with Patent Number 5,799,150.

10. Regarding claim(s) 1, 16, 31, Applicant's Background Art teaches transmitting data between a file system as "Distributed File Services (DFS) systems data is moved from one set of buffers within the server to another set of buffers within the server", page 1, lines 14-17.

Applicant's Background Art teaches the invention in the above claim(s) except for explicitly teaching bypassing system buffers. Hamilton teaches transferring data in a network environment. Hamilton teaches media files with pointers to a file list, col. 6, lines 34-36, 39-42, 51-59 and col. 7, lines 6-13 and their associated non-file system buffers. Hamilton teaches transmitting data in a computer network, col. 9, lines 13-14. Hamilton teaches bypassing system buffers as "no system memory buffer copy ... this traditional method is bypassed ... by minimizing data copying", col. 9, lines 59-67, and col. 10, lines 34-39, "to transfer the media data portion of the packet directly from the memory network interface into the main memory or other I/O device memory", col. 10, lines 2-6. Hamilton teaches the invention in the above claim(s) except for explicitly teaching the server having no advance knowledge of pattern of access. In that Hamilton operates to transfer data quickly the artisan would have looked to the transmission buffering arts for details of implementing buffer bypasses to transmit data. In that art, Ledain, a related network data transmission device, teaches "a highly throughput optimized apparent filesystem", col. 9, lines 33-34 in order to provide quick data throughput in a server, col. 8, lines 43-44, col. 2, lines 15-

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28. Ledain specifically teaches “selectively” routing of filesystem data through buffers, col. 9, lines 25-29 without notice as implied by selectively. Further, Ledain suggests the applicability to log “data block read or write requests”, col. 19, line 53 which will result from its implementations. The motivation to incorporate no notice of the pattern insures that data throughput speed can be increased. Thus, it would have been obvious to one of ordinary skill in the art to incorporate no notice of the pattern as taught in Ledain into the transmission system described in the Hamilton patent because Hamilton operates with real time data transfers and Ledain suggests that optimization can be obtained with file system data transfers by selective data transfers instead of maintaining transfer request updates and their associated buffers. Therefore, by the above rational, the above claim(s) are rejected.

11. Regarding claim(s) 2, 17, 32, Hamilton teaches passing said data to a storage medium, col. 5, lines 36-42 and Ledain teaches mass storage mediums interconnected with a file system, col. 8, lines 47-50

12. Regarding claim(s) 9, 24, 39, Hamilton teaches sending data to a receiver, col. 8, lines 1-3.

13. Regarding claim(s) 10-11, 25-26, 40-41, Hamilton teaches a routine to provide pointers to said sent data, col. 8, lines 39-43 and col. 7, lines 51-52.

Response to Amendment

14. The broad claim language used is interpreted on its face and based on this interpretation the claims have been rejected.

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15. The limited structure claimed, without more functional language, reads on the references provided. Thus, Applicant's arguments can not be held as persuasive regarding patentability.

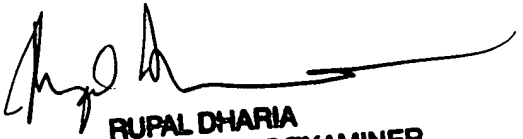
16. Applicant suggests "and/or" with regard to swapping and callbacks, but also read and write operations, Paper No. 13, Page 11, line 8. The above argument is not commensurate with what is presently claimed and therefore will not be considered at this time. Also, the independent claims state "transmitting at least one of", thus the references need only show one of the two elements described to read on these claims limitations, thus the call back type function does not have to be taught in the references if swapping is taught, and vice versa. Thus, Applicant's arguments can not be held as persuasive regarding patentability.

17. Applicant suggests Burnett teaches "a server node retrieves the file and stores it in a server cache" for direct transmission and that "this is very different from the data transmission recited", Paper No. 8, Page 12, lines 24-26 and Paper No. 13, Page 12, lines 10-11. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the cited portions of the references and relevant portions of the reference. Applicant argues "that is, the pointers to the server buffers are switched", Paper No. 13, Page 12, lines 23-24 with regard to swapping. The above argument is not commensurate with what is presently claimed and therefore will not be considered at this time. Thus, as highlighted above, copying, moving, swapping, switching, repointing, etc. need clear definitions in the claims to distinguishable. Thus, Applicant's arguments can not be held as persuasive regarding patentability.

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18. Applicant suggests Burnett does not teach “the buffer swapping and callback function execution”, Paper No. 13, Page 14, lines 2-3. However, Burnett teaches swapping, moving or changing data between a file system buffer and a server buffer, col. 4, lines 62-64. Burnett teaches transmitting data directly from a file system buffer by using a call back type function, col. 4, lines 64-66 and the applicant admits Hamilton teaches “data is transmitted directly”, but “this buffer copying avoidance is [again] quite different”, Paper No. 13, Page 14, lines 12, 25-26. Thus, Applicant’s arguments can not be held as persuasive regarding patentability.

19. The applicant’s other arguments are explained above with new sections of the references.


RUPAL DHARIA
SUPERVISORY PATENT EXAMINER

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Conclusion

20. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

21. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephan Willett whose telephone number is (703) 308-5230. The examiner can normally be reached Monday through Friday from 8:00 AM to 6:00 PM.

23. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia, can be reached on (703) 305-4003. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

24. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9605.

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January 8, 2004